

## CLAIMS:

1. Multiphase LC oscillator comprising N units whereby N is at least 2, and each unit performs a phase shift of  $180^\circ/N$  of an incoming signal, whereby each unit comprises a VI converter part with a phase shift  $180^\circ/N$  and an LC oscillation part, and the multiphase LC oscillator supplies at least two outputs signal with a phase difference.

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2. Multiphase LC oscillator as claimed in claim 1, characterized in that each unit comprises control means to adjust the phase shift to obtain the required phase shift of  $180^\circ/N$ .

Multiphase LC oscillator as claimed in claim 2, characterized in that a VI converter of the unit comprises amplifiers in series with a compensation amplifier parallel.

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3. V/I converter for use in a multiphase LC oscillator according to claim 1, characterized in that V/I converter comprises compensation means to compensate for a phase shift.

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4. Method to obtain multiphase signals with phase differences  $180^\circ/N$  whereby N is at least 2, having the steps of receiving an incoming signal, performing a phase shift of  $180^\circ/N$  and supplying signals with a phase difference.